

ENVIRONMENTAL QUALITY

CHAPTER 24

RECLAMATION

Sub-Chapter 7

Strip and Underground Mine Reclamation Act:
Topsoiling, Revegetation, and Protection
of Wildlife and Air Resources

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Sub-Chapter 7

Strip and Underground Mine Reclamation Act:
Topsoiling, Revegetation, and Protection of
Wildlife and Air Resources

17.24.701 REMOVAL OF SOIL (1) Prior to any surface disturbance by the mining operation, and after the removal of vegetation that would interfere with soil removal and use, all soil suitable for reclamation use must be removed. Exceptions may be granted if the operator demonstrates to the satisfaction of the department that a site-specific disturbance would be insignificant and that soil loss, degradation, and contamination would be minimized.

(2) The operator shall use a multiple-lift soil handling method consisting of the separate handling of surface soil (A, E, and possibly upper B or C horizons) and subsurface soil (underlying B and C horizons) during salvage, stockpiling, and redistribution, unless, for any particular soil component, the operator affirmatively demonstrates, and the department finds, that multiple lifts are not necessary to achieve reclamation consistent with the Act, rules and reclamation plan.

(3) Undisturbed soils must be protected to the extent possible from contamination and degradation and soil salvage operations must be conducted in a manner and at a time that minimizes erosion, contamination, degradation, compaction, and deterioration of the biological properties of the soil.

(4) Soil removal is not required for minor disturbances which occur at the site of small structures such as power poles, signs or fences or where operations will not destroy vegetation and cause erosion. (History: 82-4-204, 82-4-231, MCA; IMP, 82-4-232, MCA; NEW, 1980 MAR p. 725, Eff. 4/1/80; AMD, 1989 MAR p. 30, Eff. 1/13/89; TRANS, from DSL, 1996 MAR p. 2852; AMD, 2004 MAR p. 2548, Eff. 10/22/04.)

17.24.702 REDISTRIBUTION AND STOCKPILING OF SOIL

(1) After salvage, soil must be immediately redistributed according to the requirements of (5) and (6) on areas graded to the approved postmining topography.

(2) Salvaged soil must be stockpiled if graded areas are not immediately available for redistribution. Soil stockpiles must be located where they will not be disturbed by mining operations and will not be lost to wind or water erosion. Compaction, contamination, and degradation of stockpiles must be minimized. Stockpiled soil must not be rehandled until replaced on regraded areas, unless authorized by the department.

(3)(a) Inactive soil stockpiles must be seeded or planted with an effective cover of non-noxious, quick-growing, annual and/or perennial plants during the first normal period favorable for planting.

(b) Active stockpiles or stockpiles that will be used within one year do not require seeding. However, other measures must be taken as necessary to minimize erosion.

(4) Prior to redistribution of soil or soil substitutes, regraded areas must be:

(a) sampled and analyzed to determine the physicochemical nature of the surficial spoil material in accordance with ARM 17.24.313(1)(g)(xi);

(b) scarified on the contour to a minimum 12-inch depth, unless otherwise approved by the department upon a determination that the purpose of this subsection will be met, to eliminate any possible slippage potential at the soil/spoil interface, to relieve compaction, and to promote root penetration and permeability of spoils. If no adverse effects to the redistributed material or postmining land use will occur, such treatments may be conducted after the soil or soil substitute is replaced.

(5) The operator shall, during and after redistribution, prevent, to the extent possible, spoil and soil compaction, protect against soil erosion, contamination, and degradation, and minimize the deterioration of the biological properties of the soil.

(6) Soil must be redistributed in a manner that achieves thicknesses consistent with soil resource availability and appropriate for the postmining vegetation, land uses, contours, and surface water drainage systems.

(7) Redistributed soil must be reconditioned by subsoiling or other appropriate methods approved by the department. Soil reconditioning must be done on the contour, whenever possible. (History: 82-4-204, MCA; IMP, 82-4-232, MCA; NEW, 1980 MAR p. 725, Eff. 4/1/80; AMD, 1989 MAR p. 30, Eff. 1/13/89; AMD, 1994 MAR p. 2957, Eff. 11/11/94; TRANS, from DSL, 1996 MAR p. 2852; AMD, 1999 MAR p. 811, Eff. 4/23/99; AMD, 2004 MAR p. 2548, Eff. 10/22/04.)

17.24.703 SUBSTITUTION OF OTHER MATERIALS FOR SOIL

(1) Any application for permit or accompanying reclamation plan that for any reason proposes to use materials other than, or along with, soil and final surfacing of spoil or other disturbances must document problems of soil quantity or quality. The following requirements must be met before use of material other than soil will be allowed:

(a) The operator shall demonstrate and the department shall find that the resulting medium is at least as capable as the soil of supporting the approved vegetation and postmining land use (see ARM 17.24.304(1)(g) and (1)(k)).

(b) The medium must be the best available in the permit area to support revegetation.

(2) Soil substitutes must be handled consistent with ARM 17.24.701 and 17.24.702. (History: 82-4-204, 82-4-231, MCA; IMP, 82-4-232, MCA; NEW, 1980 MAR p. 725, Eff. 4/1/80; AMD, 1989 MAR p. 30, Eff. 1/13/89; TRANS, from DSL, 1996 MAR p. 2852; AMD, 2004 MAR p. 2548, Eff. 10/22/04.)

Rules 17.24.704 through 17.24.710 reserved

17.24.711 ESTABLISHMENT OF VEGETATION (1) Vegetation must be reestablished in accordance with 82-4-233(1), (2), (3), and (5), MCA, as follows:

(a) Sections 82-4-233(1), (2), and (3), MCA, state: "(1) The operator shall establish on regraded areas and on all other disturbed areas, except water areas, surface areas of roads, and other constructed features approved as part of the postmining land use, a vegetative cover that is in accordance with the approved permit and reclamation plan and that is:

"(a) diverse, effective, and permanent;

"(b) composed of species native to the area or of introduced species when desirable and necessary to achieve the postmining land use and when approved by the department;

"(c) at least equal in extent of cover to the natural vegetation of the area; and

"(d) capable of stabilizing the soil surface in order to control erosion to the extent appropriate for the approved postmining land use.

"(2) The reestablished plant species must:

"(a) be compatible with the approved postmining land use;

"(b) have the same seasonal growth characteristics as the original vegetation;

"(c) be capable of self-regeneration and plant succession;

"(d) be compatible with the plant and animal species of the area; and

"(e) meet the requirements of applicable seed, poisonous and noxious plant, and introduced species laws or regulations.

"(3) Reestablished vegetation must be appropriate to the postmining land use so that when the postmining land use is:

"(a) cropland, the requirements of subsections (1)(a), (1)(c), (2)(b), and (2)(c) are not applicable;

"(b) pastureland or grazing land, reestablished vegetation must have use for grazing by domestic livestock at least comparable to premining conditions or enhanced when practicable;

"(c) fish and wildlife habitat, forestry, or recreation, trees and shrubs must be planted to achieve appropriate stocking rates."

(b) Section 82-4-233(5), MCA, states: "For land that was mined, disturbed, or redisturbed after May 2, 1978, and that was seeded prior to January 1, 1984, using a seed mix that was approved by the department and on which the reclaimed vegetation otherwise meets the requirements of subsections (1) and (2) and applicable state and federal seed and vegetation laws and rules, introduced species are considered desirable and necessary to achieve the postmining land use and may compose a major or dominant component of the reclaimed vegetation."

(2) For areas designated prime farmland, the requirements of ARM 17.24.811 and 17.24.815 must be met.

(3) The department shall determine cover, planting, and stocking specifications either on a programmatic basis or for each operation based on local and regional conditions after consultation with and approval by:

(a) the department of fish, wildlife, and parks for reclamation to land uses involving fish and wildlife habitat; and

(b) the department of natural resources and conservation for reclamation to land uses involving forestry. (History: 82-4-204, MCA; IMP, 82-4-233, 82-4-235, MCA; NEW, 1980 MAR p. 725, Eff. 4/1/80; AMD, 1989 MAR p. 30, Eff. 1/13/89; AMD, 1990 MAR p. 934, Eff. 5/18/90; AMD, 1994 MAR p. 2957, Eff. 11/11/94; TRANS, from DSL, 1996 MAR p. 3042; AMD, 1999 MAR p. 811, Eff. 4/23/99; AMD, 2004 MAR p. 2548, Eff. 10/22/04.)

Rule 17.24.712 reserved

17.24.713 TIMING OF SEEDING AND PLANTING (1) Seeding and planting of disturbed areas must be conducted during the first appropriate period favorable for planting after final seedbed preparation unless a variance is approved by the department. The appropriate period favorable for planting is that planting time generally accepted locally for the type of plant materials selected to meet specific site and climatic conditions. (History: 82-4-204, MCA; IMP, 82-4-233, 82-4-234, 82-4-235, MCA; NEW, 1980 MAR p. 725, Eff. 4/1/80; AMD, 1980 MAR p. 30, Eff. 1/13/89; TRANS, from DSL, 1996 MAR p. 3042; AMD, 1999 MAR p. 811, Eff. 4/23/99.)

17.24.714 SOIL STABILIZING PRACTICES (1) Such practices as seedbed preparation, mulching, or cover cropping must be used on all regraded and resoiled areas to control erosion, to promote germination of seeds, and to increase the moisture retention of the soil until an adequate, permanent cover is established. This requirement may be suspended if the operator demonstrates to the department's satisfaction that it is not needed to control air or water pollution and erosion. (History: 82-4-204, MCA; IMP, 82-4-233, 82-4-235, MCA; NEW, 1980 MAR p. 725, Eff. 4/1/80; AMD, 1989 MAR p. 30, Eff. 1/13/89; TRANS, from DSL, 1996 MAR p. 3042; AMD, 2004 MAR p. 2548, Eff. 10/22/04.)

Rule 17.24.715 reserved

17.24.716 METHOD OF REVEGETATION (1) All revegetation must be in compliance with the approved reclamation plan and carried out in a manner that encourages prompt vegetation establishment.

(2) Revegetation must be accomplished by drill or broadcast seeding, by seedling transplants, by establishing sod plugs, or by other methods. All methods must have prior approval of the department. All seeding must be done on the contour, whenever possible. Mixed seedings must be conducted in a manner and at a time that will avoid deleterious competition of different vegetal types or to avoid seed distribution problems due to different seed sizes.

(3) Seeding rates must be calculated on a pure live seed basis, and purity and germination percentages must be documented.

(4) To the extent possible, the operator shall utilize seed mixes free of weedy or other undesirable species and shall utilize the best reclamation and land management techniques available to prevent establishment of noxious weeds on all disturbed and reclaimed areas. The operator shall control noxious weeds in accordance with the Noxious Weed Management Act (7-22-2101 through 7-22-2153, MCA, as amended). (History: 82-4-204, MCA; IMP, 82-4-233, 82-4-235, MCA; NEW, 1980 MAR p. 725, Eff. 4/1/80; AMD, 1989 MAR p. 30, Eff. 1/13/89; TRANS, from DSL, 1996 MAR p. 3042; AMD, 1999 MAR p. 811, Eff. 4/23/99; AMD, 2004 MAR p. 2548, Eff. 10/22/04.)

17.24.717 PLANTING OF TREES AND SHRUBS (1) Tree or shrub species necessary to meet the approved postmining land use must be adapted for local site conditions and climate. Trees and shrubs must be planted in combination with herbaceous species as necessary to achieve the postmining land use and as approved by the department. If necessary to increase tree and shrub survival, seeding of the herbaceous species may be delayed providing that measures are taken to control air and water pollution and erosion. (History: 82-4-204, MCA; IMP, 82-4-233, 82-4-235; NEW, 1980 MAR p. 725, Eff. 4/1/80; AMD, 1989 MAR p. 30, Eff. 1/13/89; TRANS, from DSL, 1996 MAR p. 3042; AMD, 2004 MAR p. 2548, Eff. 10/22/04.)

17.24.718 SOIL AMENDMENTS, MANAGEMENT TECHNIQUES, AND LAND USE PRACTICES (1) Soil amendments must be used as necessary to supplement the soil and to aid in the establishment of a permanent vegetative cover as specified in the approved reclamation plan or as later deemed necessary by the department.

(2) An operator may use only normal husbandry practices to ensure the establishment of vegetation consistent with the approved reclamation plan.

(3) Reclamation land use practices including, but not limited to, grazing, haying, or chemical applications, may not be conducted in a manner or at a time that interferes with establishment and/or persistence of seeded and planted grasses, forbs, shrubs, and trees or with other reclamation requirements. (History: 82-4-204, MCA; IMP, 82-4-233, 82-4-235, MCA; NEW, 1980 MAR p. 725, Eff. 4/1/80; AMD, 1989 MAR p. 30, Eff. 1/13/89; TRANS, from DSL, 1996 MAR p. 3042; AMD, 1999 MAR p. 2768, Eff. 12/3/99; AMD, 2004 MAR p. 2548, Eff. 10/22/04.)

17.24.719 LIVESTOCK GRAZING IS REPEALED (History: 82-4-204, MCA; IMP, 82-4-233, 82-4-235, MCA; NEW, 1980 MAR p. 725, Eff. 4/1/80; AMD, 1989 MAR p. 30, Eff. 1/13/89; TRANS, from DSL, 1996 MAR p. 3042; REP, 2004 MAR p. 2548, Eff. 10/22/04.)

17.24.720 ANNUAL INSPECTIONS FOR REVEGETATED AREAS IS REPEALED (History: 82-4-204, MCA; IMP, 82-4-233, 82-4-235, MCA; NEW, 1980 MAR p. 725, Eff. 4/1/80; AMD, 1989 MAR p. 30, Eff. 1/13/89; TRANS, from DSL, 1996 MAR p. 3042; REP, 2004 MAR p. 2548, Eff. 10/22/04.)

17.24.721 ERADICATION OF RILLS AND GULLIES (1) When rills or gullies form in areas that have been regraded and resoiled, the rills or gullies must be filled, graded, or otherwise stabilized and the area reseeded or replanted if rills or gullies are:

(a) disrupting the approved postmining land use or reestablishment of the vegetative cover; or

(b) causing or contributing to a violation of water quality standards for a receiving stream.

(2) The department shall specify time frames for completion of rill and gully repair work. Repair work will result in restarting the period of responsibility for reestablishing vegetation, unless it can be demonstrated that such work is a normal conservation practice and is limited to:

(a) minor erosional features on land for which proper erosion-control practices are in use; and

(b) rills and gullies that affect only small areas and do not recur.

(3) If reclaimed areas have experienced extensive rill or gully erosion, the department may require submittal of a plan of mitigation for such features and department approval prior to implementation of repair work. (History: 82-4-204, MCA; IMP, 82-4-233, 82-4-235, MCA; NEW, 1980 MAR p. 725, Eff. 4/1/80; AMD, 1989 MAR p. 30, Eff. 1/13/89; AMD, 1990 MAR p. 936, Eff. 5/18/90; AMD, 1994 MAR p. 2957, Eff. 11/11/94; TRANS, from DSL, 1996 MAR p. 3042.)

Rule 17.24.722 reserved

17.24.723 MONITORING (1) The operator shall conduct periodic vegetation, soils, and wildlife monitoring under plans submitted pursuant to ARM 17.24.312(1)(d) and 17.24.313(1)(f)(iv) and (1)(g)(ix) and the approved postmining land use as approved by the department.

(2) The data and a narrative interpretation thereof must be submitted on a schedule and in a manner approved by the department. Detail of the narrative interpretation must be determined in consultation with the department to demonstrate compliance with the Act, other state and federal laws, and applicable rules in this chapter.

(3) If the data indicate that corrective measures are necessary, the operator shall implement corrective measures to comply with permit requirements.

(4) The operator may request and the department may approve revision or discontinuation of a monitoring program, if it can be documented that adverse impacts have not occurred and are unlikely to occur or that mitigating measures have been effective. (History: 82-4-204, 82-4-205, MCA; IMP, 82-4-233, 82-4-235, MCA; NEW, 1980 MAR p. 725, Eff. 4/1/80; AMD, 1989 MAR p. 30, Eff. 1/13/89; TRANS, from DSL, 1996 MAR p. 3042; AMD, 2004 MAR p. 2548, Eff. 10/22/04.)

17.24.724 REVEGETATION SUCCESS CRITERIA (1) Success of revegetation must be determined by comparison with unmined reference areas or by comparison with technical standards. Reference areas and standards must be representative of vegetation and related site characteristics occurring on lands exhibiting good ecological integrity. The department must approve the reference areas, technical standards, and methods of comparison.

(2) Reference areas are parcels of land chosen for comparison to revegetated areas. A reference area is not required for vegetation parameters with approved technical standards. Reference areas must be in a condition that does not invalidate or preclude comparison to revegetated areas and the operator must:

(a) have legal right to control the management of all approved reference areas; and

(b) manage reference areas in a manner that is comparable to the management of the revegetated areas and in accordance with the approved postmining land use.

(3) Technical standards may be derived from:

(a) historical data generated for a sufficient time period to encompass the range in climatic variations typical of the premine or other appropriate area; or

(b) data generated from revegetated areas that are compared to historical data representing the range of climatic conditions comparable to those conditions existing at the time revegetated areas are sampled; or

(c) U.S. department of agriculture, U.S. department of the interior, or other publications or sources relevant to the area and land use of interest and approved by the department.

(History: 82-4-204, MCA; IMP, 82-4-233, 82-4-235, MCA; NEW, 1980 MAR p. 725, Eff. 4/1/80; AMD, 1990 MAR p. 964, Eff. 5/18/90; AMD, 1994 MAR p. 2957, Eff. 11/11/94; TRANS, from DSL, 1996 MAR p. 3042; AMD, 1999 MAR p. 811, Eff. 4/23/99; AMD, 1999 MAR p. 2768, Eff. 12/3/99; AMD, 2004 MAR p. 2548, Eff. 10/22/04.)

17.24.725 PERIOD OF RESPONSIBILITY (1) Except as provided in 82-4-235(3), MCA, et seq., the minimum period of responsibility for reestablishing vegetation begins after the last seeding, planting, fertilizing, irrigating, or other activity related to phase III reclamation as determined by the department unless it can be demonstrated that such work is a normal husbandry practice that can be expected to continue as part of the postmining land use or if discontinuance of the practices after the liability period expires will not reduce the probability of permanent revegetation success.

(2) Application for phase III bond release may not be submitted prior to the end of the tenth growing season. (History: 82-4-204, MCA; IMP, 82-4-233, 82-4-235, MCA; NEW, 1980 MAR p. 725, Eff. 4/1/80; AMD, 1990 MAR p. 964, Eff. 5/18/90; TRANS, from DSL, 1996 MAR p. 3042; AMD, 1999 MAR p. 811, Eff. 4/23/99; AMD, 2004 MAR p. 2548, Eff. 10/22/04.)

17.24.726 VEGETATION MEASUREMENTS (1) Standard and consistent field and laboratory methods must be used to obtain and evaluate vegetation data consistent with 82-4-233 and 82-4-235, MCA, and to compare revegetated area data with reference area data and/or with technical standards. Specific field and laboratory methods used and schedules of assessments must be detailed in a plan of study and be approved by the department. Sample adequacy must be demonstrated. In addition to these and other requirements described in this rule, the department shall supply guidelines regarding acceptable field and laboratory methods.

(2) Production, cover, and density shall be considered equal to the approved success standard when they are equal to or greater than 90% of the standard with 90% statistical confidence, using an appropriate (parametric or non-parametric) one-tail test with a 10% alpha error.

(3) The revegetated areas must meet the performance standards in (1) and (2) for at least two of the last four years of the phase III bond period. Pursuant to ARM 17.24.1113, the department shall evaluate the vegetation at the time of the bond release inspection for phase III to confirm the findings of the quantitative data.

(4) The reestablished vegetation must meet the requirements of the Noxious Weed Management Act (7-22-2101 through 7-22-2153, MCA, as amended). (History: 82-4-204, MCA; IMP, 82-4-233, 82-4-235, MCA; NEW, 1980 MAR p. 725, Eff. 4/1/80; AMD, 1990 MAR p. 964, Eff. 5/18/90; AMD, 1994 MAR p. 2957, Eff. 11/11/94; TRANS, from DSL, 1996 MAR p. 3042; AMD, 1999 MAR p. 811, Eff. 4/23/99; AMD, 2004 MAR p. 2548, Eff. 10/22/04.)

Rule 17.24.727 reserved

17.24.728 COMPOSITION OF VEGETATION IS REPEALED (History: 82-4-204, MCA; IMP, 82-4-233, 82-4-235, MCA; NEW, 1980 MAR p. 725, Eff. 4/1/80; AMD, 1990 MAR p. 964, Eff. 5/18/90; TRANS, from DSL, 1996 MAR p. 3042; AMD, 1999 MAR p. 811, Eff. 4/23/99; REP, 2004 MAR p. 2548, Eff. 10/22/04.)

Rule 17.24.729 reserved

17.24.730 SEASON OF USE IS REPEALED (History: 82-4-204, MCA; 82-4-233, 82-4-235, MCA; NEW, 1980 MAR p. 725, Eff. 4/1/80; AMD, 1990 MAR p. 964, Eff. 5/18/90; TRANS, from DSL, 1996 MAR p. 2852; REP, 2004 MAR p. 2548, Eff. 10/22/04.)

17.24.731 ANALYSIS FOR TOXICITY (1) Where toxicity to plants or animals is suspected due to the effects of disturbance, the department may require comparative chemical analyses of the plants or animals, or both, on the revegetated area and the reference area. Alternatively, the department may require or approve a comparison of chemical analyses of plants or animals, or both, from the revegetated area with suitable standards. (History: 82-4-204, 82-4-205, MCA; IMP, 82-4-233, 82-4-235, MCA; NEW, 1980 MAR p. 725, Eff. 4/1/80; AMD, 1990 MAR p. 964, Eff. 5/18/90; TRANS, from DSL, 1996 MAR p. 2852.)

17.24.732 VEGETATION REQUIREMENTS FOR PREVIOUSLY CROPPED AREAS IS REPEALED (History: 82-4-204, MCA; IMP, 82-4-233, 82-4-235, MCA; NEW, 1980 MAR p. 725, Eff. 4/1/80; AMD, 1990 MAR p. 964, Eff. 5/18/90; TRANS, from DSL, 1996 MAR p. 2852; REP, 2004 MAR p. 2548, Eff. 10/22/04.)

17.24.733 MEASUREMENT STANDARDS FOR TREES, SHRUBS, AND HALF-SHRUBS IS REPEALED (History: 82-4-204, 82-4-205, MCA; IMP, 82-4-233, 82-4-235, MCA; NEW, 1980 MAR p. 725, Eff. 4/1/80; AMD, 1990 MAR p. 964, Eff. 5/18/90; TRANS, from DSL, 1996 MAR p. 2852; AMD, 1999 MAR p. 811, Eff. 4/23/99; REP, 2004 MAR p. 2548, Eff. 10/22/04.)

Rules 17.24.734 through 17.24.750 reserved

17.24.751 PROTECTION AND ENHANCEMENT OF FISH, WILDLIFE, AND RELATED ENVIRONMENTAL VALUES (1) No surface or underground mining operation may be conducted which is likely to jeopardize the continued existence of endangered or threatened species listed by the secretary of the interior or which is likely to result in the destruction or adverse modification of designated critical habitat of such species in violation of the Endangered Species Act of 1973, as amended (16 USC 1531, et seq.), or which would result in the unlawful taking of a bald or golden eagle, its nest, or any of its eggs, as a result of the mining operation. The operator shall promptly report to the department and the U.S. fish and wildlife service the presence in the permit area of any listed threatened or endangered species or critical habitat thereof, any plant or animal listed as threatened or endangered by Montana, or any bald or golden eagle roost site, seasonal concentration area, or breeding territory of which the operator becomes aware and which was not previously reported to the department. Upon notification, the department shall consult with appropriate state and federal fish and wildlife agencies and shall thereafter identify whether and under what conditions the operator may proceed. The U.S. fish and wildlife service's threatened and endangered species-specific protective measures must be implemented when so determined by the department in consultation with the U.S. fish and wildlife service.

(2) In addition to the requirements of 82-4-231(10)(j), MCA, the operator shall:

(a) ensure that the design and construction of electric powerlines and other transmission facilities used for or incidental to the strip or underground mining operations on the permit area are adequate to minimize collisions and electrocutions of raptors, waterfowl, and other wildlife species. All powerlines must be constructed in accordance with "Suggested Practices for Raptor Protection on Power Lines: The State of the Art in 1996 (Avian Power Line Interaction Committee, 1996)", which is incorporated by reference into this rule, or alternative guidance manuals approved by the department. For informational purposes, this document is on file at the Helena office of the department;

(b) locate and operate haul and access roads to avoid or minimize impacts to important fish and wildlife species or other species protected by state or federal law;

(c) design and construct fences, overland conveyers, and other potential structures to permit passage of large mammals, except where the department determines that such requirements are unnecessary;

(d) fence, cover, or use other appropriate methods to exclude wildlife from ponds that contain hazardous concentrations of toxic-forming materials;

(e) consult with appropriate state and federal fish and wildlife and land management agencies to ensure that reclamation will provide for habitat needs of various wildlife species in accordance with the approved postmining land use. Pursuant to 82-4-231(10)(j) and 82-4-232(9), MCA, special attention must be given to inanimate elements such as rock outcrops, boulders, rubble, dead trees, etc., that may have existed on the surface prior to mining, and to plant species with proven nutritional and cover value for fish and wildlife. Plant groupings and water sources must be distributed to fulfill the requirements of fish and wildlife;

(f) restore, consistent with 82-4-231(10)(j), 82-4-232(9), and 82-4-233, MCA, or avoid disturbance to wetlands, riparian vegetation along rivers and streams and bordering ponds and lakes, and other habitats of unusually high value for fish and wildlife, and, where practicable, enhance such habitats; and

(g) afford protection to aquatic communities by avoiding stream channels (see ARM 17.24.651) or by restoring stream channels as required in ARM 17.24.634. (History: 82-4-204, MCA; IMP, 82-4-227, 82-4-231, 82-4-232, 82-4-233, MCA; NEW, 1980 MAR p. 725, Eff. 4/1/80; AMD, 1989 MAR p. 30, Eff. 1/13/89; TRANS, from DSL, 1996 MAR p. 3042; AMD, 2004 MAR p. 2548, Eff. 10/22/04.)

Rules 17.24.752 through 17.24.760 reserved

17.24.761 AIR RESOURCES PROTECTION (1) Each operator shall employ fugitive dust control measures as an integral part of site preparation, coal mining and reclamation operations in accordance with 82-4-231(10)(m), MCA, the operator's air quality permit, and applicable federal and state air quality standards.

(2) Air monitoring equipment must be installed and monitoring must be conducted in accordance with the air monitoring plan required under ARM 17.24.311 and approved by the department. (History: 82-4-204, MCA; IMP, 82-4-231, MCA; NEW, 1980 MAR p. 725, Eff. 4/1/80; AMD, 1989 MAR p. 30, Eff. 1/13/89; TRANS, from DSL, 1996 MAR p. 3042; AMD, 2004 MAR p. 2548, Eff. 10/22/04.)

17.24.762 POSTMINING LAND USE (1) The postmining land use must satisfy 82-4-203(28) and 82-4-232(7), MCA. In applying 82-4-232(7), MCA, the following principles apply:

(a) The premining uses of the land to which the postmining land use is compared are those that the land previously supported or could have supported if the land had not been mined and had been properly managed.

(b) The postmining land use for land that has been previously mined and not reclaimed must be judged on the basis of the land use that existed prior to any mining. If the land cannot be reclaimed to the use that existed prior to any mining because of the previously mined condition, the postmining land use must be judged on the basis of the highest and best use that can be achieved and is compatible with surrounding areas.

(c) The postmining land use for land that has received improper management must be judged on the basis of the premining use of surrounding lands that have received proper management.

(d) If the premining use of the land was changed within five years of the beginning of mining, the comparison of postmining use to premining use must include a comparison with the use of the land prior to the change as well as its uses immediately preceding mining.

(2) Alternative postmining land uses may be proposed and must be determined in accordance with 82-4-232(7) and (8), MCA, and ARM 17.24.821 and 17.24.823.

(3) Certain premining facilities may be replaced pursuant to 82-4-232(10), MCA. (History: 82-4-204, 82-4-232, MCA; IMP, 82-4-233, MCA; NEW, 1980 MAR p. 725, Eff. 4/1/80; AMD, 1989 MAR p. 30, Eff. 1/13/89; TRANS, from DSL, 1996 MAR p. 3042; AMD, 1999 MAR p. 811, Eff. 4/23/99; AMD, 2004 MAR p. 2548, Eff. 10/22/04.)

17.24.763 COAL CONSERVATION (1) Strip or underground mining operations must be conducted to prevent failure to conserve coal, utilizing the best technology currently available to maintain environmental integrity. The operator shall adhere to the approved coal conservation plan required in ARM 17.24.322. (History: 82-4-204, MCA; IMP, 82-4-231, MCA; NEW, 1980 MAR p. 725, Eff. 4/1/80; AMD, 1989 MAR p. 30, Eff. 1/13/89; TRANS, from DSL, 1996 MAR p. 3042.)

17.24.764 CROPLAND RECLAMATION (1) The department may not approve a postmining land use of cropland unless the following criteria are met:

(a) prior to mining, all soils within the proposed cropland reclamation area must have been at least capability class IV, based on U.S. natural resources conservation service criteria;

(b) soils proposed for use must have the following properties:

(i) loamy texture, as defined by the U.S. soil conservation service in the Soil Survey Manual, chapter 4 as revised May, 1981, pp. 4-56 and 4-57;

(ii) rock fragment (gravels, cobbles, and channers only) contents less than 20% in the first lift and less than 35% in the second lift;

(iii) after materials are replaced, no greater than moderate wind and water erosion hazards as determined by U.S. natural resources conservation service procedures; and

(iv) levels of electrical conductivity, sodium adsorption ratio, and plant available water-holding capacity meeting the criteria for class III soils according to the "Land Capability Guide for Montana, U.S. Soil Conservation Service, June 1988", which is incorporated by reference into this rule. A copy of this document may be obtained from the Natural Resources Conservation Service, 10 E. Babcock St., Bozeman, MT 59715;

(c) soil materials must be capable of selection and handling in such a way, and redistribution to such a thickness, and the underlying regraded spoil properties must be of sufficient quality, that the postmining productivity of the root zone will be sufficient to support cropland as the postmining land use;

(d) slope gradients must not exceed 8%;

(e) the area must receive a minimum of 12 inches average annual precipitation, or there must be sufficient irrigation water available and committed to maintain crop production;

(f) the area must not be subject to flooding that would impair its suitability as cropland due to flood effects including, but not limited to, erosion, siltation, and inundation;

(g) the area must have a minimum of 90 frost-free days per year; and

(h) the department must determine that:

(i) saline seep on the proposed cropland area will not occur; and

(ii) the reclaimed area will not function as a saline seep recharge area for lands downgradient.

(2) The operator shall comply with the following requirements in reclaiming to cropland:

(a)(i) soil materials must be selected and handled in such a way and redistributed to such a thickness, and the underlying regraded spoil properties must be of sufficient quality such that the postmining productivity of the root zone will be sufficient to support cropland as the postmining land use.

(ii) the following minimum requirements must be met:

(A) soils must be replaced to a minimum thickness of 24 inches; and

(B) the root zone thickness must be consistent with the requirements of ARM 17.24.501(2);

(b) if necessary to protect replaced soil materials from wind and water erosion, or if necessary to enhance soil productivity, stability or the capacity for root penetration, a grass-legume mixture must be planted and maintained as determined by the department; and

(c) soil amendments must be added in accordance with ARM 17.24.718. (History: 82-4-204, MCA; IMP, 82-4-233, 82-4-235, MCA; NEW, 2004 MAR p. 2548, Eff. 10/22/04.)

